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An Enumeration of the Plants Collected by Dr. H. H. Rusby in South America, 1885-1886.—XVII.

(Continued from p. 110).

Geophila violæfolia, DC. Prod. iv. 537. Mapiri, 5,000 ft. (2102).

Geophila cordata, Miq. Linnæa, 1843, p. 72. Mapiri, 5,000 ft. (2106). The same as Spruce No. 3870.

Nertera depressa, Banks in Gært. Fruct. i. 124. Near La Paz. 10,000 ft. (1359).

Diodia hyssopifolia, Cham. & Schlecht. Linnæa, iii. 350 (*Diodia articulata*, D.C. Prod. iv. 564). Falls of Madeira, Brazil (2101).

Diodia (?). Sorata, 10,000 ft. (2580).

Endlichera umbellata (Spr.), Schumann in Mart. Flor. Bras. vi. part 6, 38. Mapiri, 2,500 ft. (2100).

Borreria ocymoides, D.C. Prod. iv. 544. Yungas, 4,000 ft. (1944); Mapiri, 5,000 ft. (1939); Falls of Madeira, Brazil (1940).

Borreria eryngioides, Cham. & Schlecht, Linnæa, iii. 319. Falls of Madeira, Brazil (1941).

Borreria lævis (Lam.), Griseb. Flora. Brit. W. Ind. 349. Mapiri, 2,500 ft. (1857); Reis, 1,500 ft. (1937).

Borreria corymbosa (R. & P.), D.C. Prod. iv. 550. Reis, 1,500 ft. (2107).

Borreria capitata (R. & P.), D.C. Prod. iv. 545. Yungas, 4,000 ft. (1936).

Borreria verticillata (L.), Meyer. Prim. Fl. Essequib. 83, t. 1. Guanai, 2,000 ft. (1401).

Borreria latifolia (Aubl.), Schumann in Mart. Flor. Bras. vi. part 6, 61. Mapiri, 5,000 ft. (1938; 1942).

Spermacoce tenuior (L.), Lam. Yungas, 4,000 ft. (1943).

Mitracarpus hirtus (L.), D.C. Prod. iv. 572. Guanai, 2,000 ft. (1856).

Richardsonia scaber, Linn. Spec. Plant. 330. Yungas, 6,000 ft. (1969); same as Mandon's 337.

Relbunium vaillantioides (C. & S.). Schumann in Mart. Flor. Bras. vi. part 6, 115. This is exactly the plant so named at Kew, but it differs somewhat from Schumann's description. Near La Paz, 10,000 ft. (1828).

Relbunium hypocarpium (Elmg.), Hemsley, Biol. Centr. Am. ii. 63. Unduavi, 8,000 ft. (1833); Near La Paz, 10,000 ft. (1834); Mapiri, 5,000 ft. (1830); Yungas, 4,000 ft. (1836); Valparaiso, Chili (1827).

Relbunium hirtum (Lam.), Schum. l. c. Unduavi, 8,000 ft. (1838).

Relbunium pusillum (Endl.), Schumann, Mart. Flor. Bras. vi. part 6, 117. Sorata, 10,000 ft. (1842).

Relbunium ciliatum (R. & P.), Hemsley, Biol. Centr. Am. ii. 62. Sorata, 10,000 ft. (1825, 1843); near La Paz, 10,000 ft. (1837). The latter a smooth form and the same as Mandon's 326.

Relbunium hirsutum (R. & P.), Schumann Mart. Flor. Bras. vi. part 6. 116. Sorata, 10,000 ft. (1826; 1840). Same as Mandon's No. 329.

Galium Aparine, Linn. Spec. Plant. 108. Unduavi, 8,000 ft. (1829); Ingenio del Oro, 10,000 ft. (1919).

Galium obovatum, H. B. K. Nov. Gen. Pl. ii. 334. Sorata, 10,000 ft. (1832), the same as Spruce 5214; Unduavi 10,000 ft. (1841).

Galium Chilense, Hook. f. Ant. Voy. 302. Unduavi, 10,000 ft. (1835), the same as Mandon's 331, so named at Kew, but not *G. Chilense*, Endl., which name has priority. Philippi in Cat.

Pl. Vasc. Chil. 113, refers Hooker's *G. Chilense* to *G. Chonoense*, Hook.

GALIUM MANDONI, sp. nov. Caule decumbente, gracile, flaccide, angulis retrorse scabris; foliis quaternis, lineari-oblongis, sessilibus, acutis, 5-10 mm. longis, margine carinaque retrorse scabris; pedunculis solitariis, axillaribus, recurvis, unifloris, puberulis; fructibus 2 mm. longis, glabris.

Sorata, 10,000 ft. (1831); Unduavi, 10,000 ft. (1839). The same as Mandon's 334, Herb. Kew, and 333 Herb. Col. Coll.

VALERIANEÆ.

PHYLLACTIS MAPIRENSIS, spec. nov. Cæspitosis, subacaulis; foliis spathulatis, glabris, integris, obtusis, patentibus 5-6 cm. longis; caulibus simplicibus, glabris, gracilibus 10-20 cm. altus; vaginus linearibus; cymis terminalibus, 1-2 cm. latus.

Mapiri, 5.000 ft. (876). Apparently nearest to *P. spathulata* (R. & P.), Pers., but with looser cymes and entirely glabrous leaves.

Valeriana paniculata, R. & P. Fl. Per. i. 41 t. 70. Unduavi, 8,000 ft. (883); near La Paz, 10,000 ft. (870). Same as Mandon's 317.

Valeriana micropterina, Wedd. Chloris Andina, ii. 26. Mapiri, 5,000 ft. (881). The same as Mandon's 319. Unduavi, 8,000 ft. (1174).

Valeriana Pavoni, Pœpp. in Herb. Kew. Yungas, 6,000 ft. (2160). The same as Mandon 304 and Spruce 5077.

Valeriana polemonoides, H.B.K. Nov. Gen. Am. iii. p. 331. Yungas, 4,000 ft. (879). Unduavi, 10,000 ft. (884); near La Paz, 10,000 ft. (880). No. 884 is nearly the same as Spruce's No. 5,000 in Herb. Kew, determined as this species; the other two specimens are less pubescent and perhaps distinct.

VALERIANA BOLIVIANA, spec. nova. Herbacea, adscendens vel scandens, caulis fistulosis, striatis, 1m.-2m. altus, ad nodos pilosis vel glabris. Folia pinnata, vel superiores pinnatifida. Petiolus basi dilatatis. Foliola 3-7, sessiles vel breve petiolulata, ovata, lanceolata vel oblonga, obtuse dentata, vel superiores integra, supra glabra subtus principue ad venulos plus

minus pilosa; inflorascentia laxe paniculata; corolla 1 mm. longa; fructus ovatis 1½ mm. longis; calycis limbo breve papposo-coronatus.

Yungas, 6,000 ft. (871, 875); Unduavi, 10,000 ft. (872, 877). Sorata, 10,000 ft. (1237). Nearest to *V. scandens*, L. The same as Mandon's 313 and 315. I may have included more than one species in this description, but I do not see any satisfactory way of separating the several specimens. I am regarding No. 871 as the type.

VALERIANA RUSBYI, spec. nova. Herbacea, erecta, pubescens, 40 cm. 50 cm. alta. Folia simplicia, integra vel undulata, ovato-lanceolata, petiolata 3 cm. 5 cm. longa, acuminata, basis cordatis. Corolla 4-5 mm. longa. Inflorascentia repitite dichotomis ramis primariis 2-3 cm. longis; fructus ovato-oblongis, 2 mm. longis.

Unduavi, 8,000 ft. (2097).

VALERIANA (?) ANDINA, spec. nova. Herbacea, glabra, erecta, 15 25 cm. alta. Caulis subaphyllis. Folia radicalia, spathulata, 5-7 cm. longa, grosse undulato-dentata, apice obtusa. Bractae 1-2, foliacea. Inflorascentia corymboso-capitata. Corolla 1 mm. longa. Near *V. oblongifolia*, R. & P., of which there is a type in Herb. Mus. Brit.

Near La Paz, 10,000 ft. (878). The same as Mandon's 307.

VALERIANA MANDONI, spec. nova. Herbacea, glabra, erecta, caule simplicio, 30-50 cm. alto, glabro. Folia radicalia longe petiolata, ovata, cordata, sinuato-dentata, 2-3 cm. longa, apice obtusa; folia caulina similia minores, sessiles vel breviter petiolata. Inflorascentia e cymulis laxifloris confecta. Corolla 3 mm. longa. Achenia late ovata 2 mm. longa.

Sorata, 10,000 ft. (874); Unduavi, 5,000 ft. (882). Same as Mandon's 303. Near *V. urticæfolia*, H.B.K.

DIPSACEÆ.

Scabiosa maritima, Linn. Amœn. Ac. iv. 305. Tacna (1788).

CALYCEREÆ.

Acicarpha procumbens, Less. Linnæa, 1831, 527. Sorata, 10,000 ft. (1376).

New or Noteworthy North American Phanerogams.—IV.

By N. L. Britton.

Ranunculus pedatifidus, Smith in Rees. Cyclop. No. 72 (1819).
R. affinis, R. Br. in Bot. App. Parry's First Voyage, 265 (1823).

Smith gives a very good account of the plant, saying that there are four specimens of it in the Linnæan Herbarium, and that it is a native of Siberia. It is now known to inhabit both northern Asia and North America. The specimens are still in the Linnæan Herbarium.

Var. CARDIOPHYLLUS (Hook.), (*R. cardiophylius*, Hook. Fl. Bor. Am. i. 14 (1830); *R. affinis*, var. *cardiophyllus*, A. Gray, Proc. Acad. Phil. 1863, 56), the state of the species with entire or nearly entire radical leaves, appears to bear a similar relation to it as *R. micranthus*, Nutt. does to *R. abortivus*, L.

RANUNCULUS GRAYI.

Ranunculus pedatifidus, Hook. Fl. Bor. Am. i. 18 (1830), not of Smith (1819).

R. Hookeri, Regel, Fl. Ost. Sib. i. 47 (1862), not of Schlecht. Linnæa, ix. 610 (1834).

Schlechtendahl's *R. Hookeri* is a Mexican species.

ISOPYRUM, L. Gen. Pl. Ed. 2, 245 (1742).
Coptis, Salisb. Trans. Linn. Soc. viii. 305 (1803).

Isopyrum and *Coptis* have been kept separate by recent authors, the character depended upon for their distinction being the sessile follicles of the one and the stipitate follicles of the other. Baillon (Hist. Pl. i.) has referred *Coptis* to *Helleborus*, L. under which genus the typical species *H. trifolius*, L. was first described, and except for the vegetative characters it is certainly closely related to this genus. But taking all the known species together it seems to me more desirable to unite *Coptis* with *Isopyrum*. *Isopyrum stipitatum*, A. Gray, of the Northwest contains in itself the characters of the two genera. Our Eastern species *Helleborus trifolius*, L., will then become I. TRIFOLIUM (L).

NECKERIA, Scop. Introd. Hist. Nat. 313 (1777).
Corydalis, Vent. Choix. Pl. Cels t. 19 (1803).

This, as pointed out by Pfeffer, (Bot. Zeit. xv. 643), is the first

post-Linnæan name applicable to these plants, Linnæus having regarded them as species of *Fumaria*. The pre-Linnæan name was *Capnoides*, but this was taken up by Rupp, (Flora Jen. Ed. 2,268 (1745)), for the South African plant subsequently described by Linnæus as *Fumaria vesicaria* and on which the genus *Cysticapnos* of Gærtner is based.

If we are to follow the opinion of Bentham and Hooker, as expressed in Gen. Pl. i. 56, that the South African species is congeneric with those of the northern hemisphere, then *Capnoides*, Rupp., should be applied to them all; but this plant appears to me to have sufficient characters to rank as a valid genus. I am quite aware that the adjective termination *oides* for genera, has been objected to by many authors, but it is in frequent use in zoology, and was freely used by pre-Linnæan botanists (*Cyperoides*, Tourn. =*Carex*, L., for example), and is no more adjective than *Gloriosa* L., or *Impatiens*, L., which are in common use. Scopoli's name *Neckeria* will prevent *Neckera*, Hedw. Fund. Hist. Musc. ii. 93 (1782), being used for the genus of Mosses, which has, however, received the name *Paraphysanthus*, Spruce, while *Neckeria*, Gmel. Syst. ii. 16 (1791) is the same as *Pollichia*.

Neckeria has been adopted for *Corydalis* by Mr. N. E. Brown of Kew, in his forthcoming supplement to the English Botany, and to him I am indebted for the reference to Rupp's work.

BIKUKULLA, Adans. Fam. Pl. ii. 23 (1763).

Diclytra, Borckh. in Roem. Arch. i. Pars. 2, 46 (1797).

Cucularia, Raf. Med. Rep. (II) v. 352 (1808).

Dicentra, Bernh. Linnæa, viii. 468 (1833).

Eucapnos, Bernh. loc. cit. (1833).

The adoption of Adanson's name for the plants which have recently been generally known as *Dicentras*, will happily solve the question as to the misspelling of Borckhausen's *Diclytra*. There can be no doubt of what Adanson meant, his description being clear, and his reference to Plukenet's Plate 90, fig. 3, being consulted shows this to be a pretty good representation of our *Dicentra Canadensis*. Adanson's name is based on Bicuculata, March. Mem. Acad. Paris, 1733, t. 20.

Nasturtium hispidum (Desv.) DC. Syst. ii. 201 (1821).

Brachylobus hispidus, Desv. Journ. Bot. iii. 183 (1814).

Nasturtium palustre, var. *hispidum*, A. Gray, Man. Ed. 5 (1867.)

I am satisfied that this is a distinct species from the European *N. palustre*, and in this conclusion I am strengthened by the opinions of such close observers as Mr. Bicknell and Professor Macoun. The plant is apparently strictly East American in distribution, and is one of the commonest Crucifers in our territory. *N. palustre* is rarely met with and occurs only in situations where it has been introduced. It can readily be distinguished from *N. hispidum* by its linear pods which are 4-6 times as long as thick, and by the nearly entire absence of pubescence on the stem and branches, *N. hispidum* having globose-ovoid pods, and usually considerable hirsute pubescence.

The status of the Northwestern and Rocky Mountain plant which has also been referred to *N. palustre* is more uncertain. It is commonly larger than European *palustre*, has, I believe, larger flowers and still longer pods. Professor Macoun is inclined to consider it a distinct species, but the specimens at my command do not convince me of the correctness of this view. It is certainly closer to *palustre* than *hispidum* is, and shares the peculiarity of many Rocky Mountain species in more nearly resembling European plants than do those of the eastern half of the continent.

Arabis lyrata, L. Sp. Pl. 685 (1753).

Cardamine spathulata, Michx. Fl. Bor. Am. ii. 29 (1803).

Under these circumstances it will no longer seem strange that Michaux's species which came from the Southern Alleghenies, and of which the type is preserved at Paris, has never since been found.

CORONOPUS, Hall. Helv. i. 217 (1768), fide Baillon, Hist. Pl. iii. 286: Gærtn. Fruct. et Sem. ii. 293, t. 242 (1791).

Senebiera, D.C. Mem. Soc. Hist. Nat. Paris, vii. 140, t. 89 (1799).

The earliest specific names of the two species occurring in North America may be indicated as follows:

1. *Coronopus didymus*, (L.), Smith, Fl. Brit. iii. 691 (1800).

Lepidium didymum, L. Mant; 92 (1767). *Lepidium Anglicum*, Huds., Fl. Angl. Ed. 2. 280 (1778). *Senebiera didyma*, Pers. Syn. ii. 185 (1807).

2. CORONOPUS CORONOPUS, (L). *Cochlearia Coronopus*, L. Sp., Pl. 648 (1753). *Nasturtium verrucarium*, Gars. Fig. Pl. t. 402 (1767), fide DC. *Senebiera Coronopus*, Poir. in Lam. Encycl. vii. 76 (1806).

Linnæus employed the generic name in the first edition of his Systema, (1835), but that is a mere list of genera.

POMBALIA, Vandelli Fasc. Pl. 7 (1771).

This long antedates *Ionidium* as a generic name, for the latter was not published until 1803 (Vent. Hort. Malm. 27, t. 27).

Pombalia is based on the South American plant commonly known as *Ionidium Ipecacuanhæ* which Vandelli described as *Pombalia Ipecacuanhæ*, giving a very good figure of it. There seems no good reason, then, for not using the older name. As to related genera, *Solea*, Spreng, as also older than *Ionidium*, dating from 1800, and was thought by Dr. Gray to be distinct, although united with *Ionidium* by Bentham and Hooker. *Hybanthus*, Jacq. Enum. Carib. 2 (1760) is the oldest named of the group, based upon the spiny plants of the West Indies, and Baillon unites them all under this name. But if we follow Dr. Gray in keeping up *Hybanthus*, (Bot. Gaz. xi. 293), then the next oldest name is *Pombalia*.

Silene Caroliniana, Walt. Fl. Car. 142 (1788).

Silene Pennsylvanica, Michx. Fl. Bor. Am. i. 272 (1803).

There is a specinen of this plant in Walter's Herbarium, marked "Silene an Virginica," evidently a type of his description, which fits it exactly. In the Linnæan Herbarium there is also a specimen of it marked *Virginica*, by Linnæus, but pinned fast to the sheet is another bearing a good specimen marked only "K," indicating that it was received from Kalm, of the *S. Virginica* of the description in Species Plantarum, 419. Linnæus evidently did not distinguish the two species.

CERASTIUM ERECTUM (L).

Sagina erecta, L. Sp. Pl. 128 (1753).

Cerastium quaternellum, Fenzl. Verbr. Alsin. syn. table p. 18 (1833).

This species, which was included in the earlier editions of Gray's Manual, but omitted in the 6th edition, is represented in the Kew Herbarium by abundant specimens collected by Drummond years ago at Philadelphia, and in the Torrey Herbarium by specimens from Baltimore. It does not appear to have been recently found in the United States.

Rhus typhina, L. Amœn. Acad. iv. 311 (1760).
Datisca hirta, L. Sp. Pl. 1037 (1753).

The type of *Datisca hirta* preserved in the Linnæan Herbarium is a specimen of the Stag-horn Sumach in the condition of the inflorescence reverting to leaves, a phenomenon which frequently occurs in this and related species. Linnæus had the plant from Kalm, and it was collected at Philadelphia. Although *hirta* is thus the oldest specific name associated with the plant, we are, I think, debarred from using it by the publication of *Rhus hirta*, Harv., as a synonym by Engler in DC. Monog. Phan. iv. 425 (1883), where this is referred to *R. tridentata*, Sond.

KRAUNHIA, Raf. Med. Rep. (II) v. 352 (1808); Steud. Nom. Ed. 2, i. 850.
Diplonyx, Raf. Fl. Ludov. 101 (1817).
Thyrsanthus, Ell. Journ. Acad. Phila. i. 371 (1817).
Wisteria, Nutt. Gen. ii. 115 (1818).

Rafinesque cites *Glycine frutescens*, L., as an equivalent for his proposed genus *Kraunhia*, so there is no question of the plant intended.

CRUMINIUM, Desv. Ann. Sci. Nat. (I) ix. 423 (1826).
Centrosema, Benth. Ann. Mus. Wien. ii. 117 (1840).
Clitoria § *Centrosema*, DC. Prodr. ii. 234 (1825).

The genus is founded on the plant commonly known as *Centrosema Plumieri*, Benth. (*Cruminium giganteum*, Desv.). The North American species is CRUMINIUM VIRGINIANUM (L). *Clitoria Virginiana*, L. Sp. Pl. 753 (1753). *Centrosema Virginiana*, Benth. Ann. Mus. Wein. ii. 120 (1840).

Gleditschia aquatica, Marsh Arb. Amer. 54 (1785).

This, I believe, is the oldest available name for the Water Locust of the Southern States. To be sure, as pointed out by

Prof. Greene, (BULLETIN, xvii. 14), it was called *G. inermis* by Crantz, (Inst. Rei. Herb. 1. 219 (1766), and this name was subsequently used for the tree by Miller and K. Koch; but Linnæus published a *G. inermis* in Syst. Nat. Ed. 10 (1759), as cited in Richter's Codex, p. 1012, and repeated it in Sp. Pl. Ed. 2, 1059 (1763). Although this *G. inermis* of Linnæus was, apparently, a composite species made up of one from Java and the North American *G. triacanthos*, the reference to the Javanese tree by him stands first, and the species is said to come from Java. Hence we are not justified in using the same binomial published seven years later for a different plant.

SPIRÆA RUBRA (Hill).

Ulmaria rubra, Hill, Hort. Kew 214, t. 7 (1769).

Spiræa lobata, Gronov. in Jacq. Hort. Vind. i. 38, t. 88, (1770).

Hill's figure and description clearly indicate that he had this plant in mind rather than *Gillenia stipulata* (Muhl.) Max. Act. Hort. Petr. vi. 228 (*G. stipulacea*, Nutt.), as has been suggested.

Geum Canadense, Jacq. Hort. Vind. ii. 82, t. 175 (1772).

G. Carolinianum, Walt. Fl. Car. 150 (1788).

G. album, Gmel. Syst. ii. 861 (1791).

Jacquin's plate leaves no doubt as to what he intended. There is a fragment of *G. Carolinianum*, Walt. in Walter's Herbarium at the British Museum, which is apparently the same. *G. Canadense*, Murray, Comm. Soc. Goett. v. 33, t. 4, f. B. (1775), is from figure and description clearly *G. strictum*, Ait. Hort. Kew. ii. 217 (1789), of which there is a type preserved in the general herbarium at the British Museum.

Var. FLAVUM (Porter); *G. album*, var. *flavum*, Porter, Bull. Torr. Club, xvii. 21 (1890).

Saxifraga Geum, L. Sp. Pl. i. 401 (1753).

There is a specimen of this species in Durand's Herbarium at Paris, collected by the Rev. Mr. Steinhaur, in Newfoundland. It is erroneously labeled by Durand *S. spicata*, Don. This appears to be the first indication of its occurrence in America.

Parnassia grandifolia, DC. Prodr. i. 320 (1824).

P. Caroliniana, Michx. var. *β.*, Hook. Jour. Bot. i. 194 (1834); T. and G. Fl. N. A. i. 149.

I believe that this southern plant is specifically different from *P. Caroliniana*, Michx. As pointed out by Hooker, the staminodia are very slender and exceed the anther-bearing stamens; the flowers and leaves are usually larger; Hooker further remarks that these characters are retained in cultivation. I have never seen elongated staminodia in our common northern plant, and am very familiar with it in the wild state. The identity of DeCandolle's and Hooker's plants appears to be satisfactorily established. We have it from North Carolina, (Rugel, Dr. Gray) Florida, (Chapman). DeCandolle's plant came from the Cherokee country, and Hooker's from Louisiana. There may be some doubt as to whether this, or what we are calling *Caroliniana*, is really the plant of Michaux, because the specimen of it is missing in his herbarium at Paris.

AMMANNIA KOEHNEI, n. sp. *Ammania humilis*, β. T. & G. Fl. N. A. i. 480 (1840).

Erect, glabrous, 6′-20′ high, at length freely branching. Leaves obovate, oblonceolate, or somewhat spatulate, obtuse or obtusish at the apex, the upper ones clasping and more or less auriculate at the base, the lower narrowed and sessile, or tapering into a short petiole; flowers 1-3 together in the axils, sessile; petals purple? fugacious; stamens very short, not exserted; style very short; capsule enclosed by the calyx.

In swamps, Hackensack marshes, New Jersey (Torrey; Leggett) to Florida. Named in honor of the distinguished monographer of the Lythrarieæ, Dr. E. Kœhne, of Berlin. The species cannot be referred to *A. latifolia*, L., which has auriculate, linear-lanceolate leaves and no petals.

Epilobium lineare, Muhl. Cat. 39 (1813).

My remarks on this species in reviewing Professor Trelease's recent Revision of the North American Epilobia (BULLETIN, this volume, p. 226), where I suggested that the name *E. oliganthum*, Michx. (1803) should have been taken for it, are quite wide of the mark, for the original in Michaux's Herbarium is *E. palustre*, L., as determined there by Haussknecht.

Epilobium glandulosum, Lehm.

Professor Trelease included this species in his treatment of the East American members of the genus in the sixth edition of Gray's Manual, but in his Revision, published subsequently, he

excludes it from the range of that work, and cites its distribution as only westward. Haussknect evidently based his statement that it occurred eastward on a specimen in Michaux's Herbarium, from Tadousac, Canada, which is so labelled by him.

Tillæa aquatica, L. Sp. Pl. 128 (1753).

T. simplex, Nutt. Journ. Acad. Phil. i. 114 (1817).

Bulliardia aquatica, D.C. Prodr. iii. 382 (1828).

I have carefully compared anthentic specimens of the East American plant with the Linnæan species at London and Paris, and am convinced that the suggestion made in Torrey and Gray's Flora N. A. that they are identical is the actual fact. M. Franchet kindly compared them with me at Paris, and had no hesitation in pronouncing them identical. He also informed me that the European plant occurs on mud, as does the American.

VLECKIA, Raf. Med. Rep. (II) v. 352 (1808).

Lophanthus, Benth. Bot. Reg. xv. under t. 1282 (1829), not Adanson, nor Forster.

Rafinesque gives *Hyssopus nepetioides* as the equivalent of *Vleckia nepetoides*, which plant was long subsequently referred by Bentham to *Lophanthus*. But in addition to the fact that a genus for these plants had been thus established, the name *Lophanthus* had been used by Adanson in Fam. Pl. ii. 194 (1763) for a species of *Nepeta*, and by Forster (Char. Gen. Pl. Insul. Maris Austral. 27, t. 14 (1776), for plants now referred to *Waltheria*. Hence *Lophanthus* is, from my point of view, doubly inapplicable to the genus of Labiatæ.

Rafinesque has named all the American species under his genus in New Flora N. A. and Fl. Telluriana.

UVULARIA, L. Gen. Pl. Ed. i. p. 93, No. 263 (1737).

Oakesia, S. Wats. Proc. Amer. Acad. xiv. 221 (1879).

The characters assigned to the genus proposed by Dr. Watson appear to me to be insufficient to separate it from *Uvularia*. They are all differences of degree rather than kind, and a careful study of all the known species in the field has afforded me no other points of difference on which a genus could be maintained. But whether they be considered as congeneric or distinct, the name applied by him is not available for these plants, because it was previously given by Tuckerman to *Corema Conradii*, Torr. (Hook. London Journ. Bot. i. 445 (1842).

Botany at the A. A. A. S.

By Arthur Hollick.

Botany and botanists assumed an unusual prominence at the Washington meeting of the A. A. A. S. The address of the retiring President of the Association, Geo. L. Goodale, on "The Possibilities of Economic Botany" and that of Vice-President John M. Coulter, before Section F., on "The Future of Systematic Botany," were two of the salient events of the meeting. The subject of the complimentary lecture, tendered by the Association to the citizens of Washington, was "Illustrations of Heredity in Plant Hybrids," by John M. Macfarlane, of Edinburgh. Sixteen of the forty-eight papers read before Section F. were upon botanical subjects. Ninety-seven members and associates registered as botanists. The Botanical Club of Washington, by reason of its souvenirs to the visiting botanists, is to be credited with having produced the handsomest and most enduring mementos of the occasion, and the Division of Forestry gave them a work which will serve as a guide in determining the trees and shrubs in the public grounds of Washington for a generation to come. Finally, the fact that the botanists appealed to the Association for recognition in a separate section, in addition to the continuance of the Botanical Club, is evidence of their growing strength and argues well for the future.

Proceedings of the Botanical Club of the A. A. A. S.

THURSDAY, AUGUST 20th.

Vice-President L. M. Underwood in the chair.

The following was offered by B. E. Fernow, and on motion of J. C. Arthur was referred to Section F. for proper presentation to and with a request for action by the Association:

Whereas, The arborescent flora of the United States excels in variety of useful plants any country of the earth under one government.

Whereas, The District of Columbia and the capital of the nation are climatically so situated that nearly all the species of the North, South, East and West may be grown there in the open, or with the minimum of protection.

Whereas, The interest in arboriculture and forestry, although growing rapidly, requires an advancement of knowledge, and still more the fostering care of the Government.

Whereas, The capital is destined to become a center of learning and instruc-

tion for all classes of the people, and the accumulation of means of education and opportunities for increasing knowledge here is most desirable.

Now, the American Association for the Advancement of Science respectfully submits to the Congress of the United States the propriety of creating an arboretum in or near the District of Columbia to be established under the direction of the Department of Agriculture, and asks that a sufficient appropriation be made for such establishment at once and further appropriations for its continuance.

The following papers were read: Methods of Instruction in Vegetable Physiology, by J. C. Arthur, illustrated by apparatus used; The Perfect Stage of *Cercospora gossypina*, by George F. Atkinson; Notes on Egg Plant Diseases, by Byron D. Halsted; Distribution of Some Fungi, by L. H. Pammel.

B. E. Fernow, on behalf of the Forestry Division, U. S. Dept. Agric., presented catalogues of the trees and shrubs in the public grounds of the city, specially drepared for the visiting botanists.*

FRIDAY, AUGUST 21st.

President Wm. M. Canby in the chair.

On motion of J. N. Rose the president was authorized to appoint a committee to endeavor to secure a more favorable ruling from the Post Office authorities in regard to mailing of herbarium specimens.

The following papers were read: Preliminary Note on a Disease of Currant Canes, by D. G. Fairchild; Two New Destructive Weeds; *Orobanche ramosa* from the tobacco and hemp fields of Kentucky, and *Salsola collina* from the wheat fields of

* *Trees of Washington, D. C.*—Geo. B. Sudworth and B. E. Fernow. (Pamph. pp. 15, two maps; compliments of the Forestry Division, U. S. Dept. Agric., Washington, D. C., Aug., 1891.) This little volume was prepared by the authors and distributed to the visiting botanists as a souvenir of the occasion, and in order to assist them in determining the trees and shrubs in the public grounds of the city. The volume is divided into two parts, the first being a complete list of all the trees and shrubsnative and introduced thus far determined throughout the city, arranged according to natural orders, and the second being lists of the species growing in the grounds of the Department of Agriculture, President's grounds and Lafayette Square. Maps accompany these latter on which each species or group of species is exactly located by number, correspondlng to the number of the name in the catalogue, so that any one with this volume in hand may locate a tree or shrub, or group of them, in the above mentioned grounds, and readily ascertain the name. The number of species and varieties listed in the Department of Agriculture grounds is 253, aud in Lafayette Square and President's grounds 106. The authors express the hope that the volume may assist to increase an interest in the idea of a National Arboretum, and they have certainly taken a very pleasing way to accomplish this result. A. H.

Dakota, by J. N. Rose; Notes on a Root Gall Fungus, by Geo. F. Atkinson; Notes on the Arrow Weeds and Jumping Beans of Mexico and Central America, by C. V. Riley. [Subsequently printed in full in Am. Garden, xii. 552-554].

Dr. E. F. Smith, on behalf of the Botanical Club of Washington, presented bound volumes of photographs, representing characteristic objects and scenery in and around the city, prepared as souvenirs for the visiting botanists.* Dr. Smith also called attention to the series of mounted plants, prepared by members of the club for distribution, and invited all present to select such species as they desired.

On motion of Arthur Hollick, the President appointed a committee, consisting of Messrs. Arthur Hollick, Thos. Meehan, and V. M. Spaulding, to prepare suitable resolutions in regard to the above, to be tendered to the Botanical Club of Washington, in behalf of the visiting botanists.

SATURDAY, AUGUST 22d.

President Wm. M. Canby in the chair.

The President announced the appointment of Messrs. Thos. Meehan, J. M. Coulter, and Geo. Vasey, as the committee on mailing of herbarium specimens.

The committee appointed to prepare resolutions on behalf of the visiting botanists, to the Botanical Club of Washington, prepared the following, which were adopted:

Whereas, The members of the Botanical Club of the A. A. A. S. present at the Washington Meeting, Aug., 1891, having received, at the hands of the Botanical Club of Washington, a cordial welcome, generous treatment and handsome souvenirs of their visit.

Resolved, That the thanks of the Botanical Club of the A. A. A. S. be, and is hereby tendered to the Botanical Club of Washington, for their thoughtful acts of kindness, which have contributed materially to the enjoyment of the meeting, and will be matters for pleasant recollection in the future.

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* *Souvenir of the Washington Botanical Club. A. A. A. S.*, 1891.

This is a handsomely bound volume consisting of twenty-four photographs, representing characteristic objects and scenery in and around Washington. It was prepared by the members of the Botanical Club of Washington, and distributed to the visiting botanists as a souvenir of the occasion. The pictures are not only artistic, but are far above the average in finish, and the cover is a work of art. The volume is an ornament to any library, and will always be a pleasant reminder of the occasion that called it into existence. A. H.

L. F. Ward offered the following:

Resolved, That the sense of this club be that a Section of Botany be formed in the American Association for the Advancement of Science, and that the attention of the Council of the Association be called to the matter through the proper channel.

On motion the resolution was adopted, and Messrs. L. F. Ward, W. J. Beal, and J. M. Coulter were appointed a committee to carry it into effect.

F. L. Scribner, on behalf of the committee on nominations presented the following ticket for the next meeting, which was unanimously elected: President, V. M. Spaulding; Vice-President, Stanley Coulter; Secretary, D. G. Fairchild.

The following papers were read: (a) Changes in the Flora of Franklin Co., Ohio, During the Past Fifty Years; (b) Notes on Plants introduced at Sellsville, near Columbus, Ohio, by W. R. Lazenby; Notes on Some Curious Fungi, by Miss E. A. Southworth, illustrated by a large specimen of *Polyporus officinalis*; Notes on *Baryeidamia parasitica*, by Mrs. K. B. Claypole; Method of Collecting and Preserving Myxomycetes, by O. F. Cook; A New Insect Destructive to Herbaria, the larva of a noctuid moth, resembling a small "measuring worm," of which specimens were shown, by L. H. Dewey; New or Little Known Plants of Alabama, by Chas. Mohr, in which *Clematis Addisoni*, *Quercus heterophylla* and a new *Helianthus* were mentioned.

Adjournment.

BOTANICAL PAPERS READ BEFORE SEC. F.

Another Chapter in the History of the Venus' Fly Trap, by J. W. Macfarlane.

On the Prothallium and Embryo of *Osmunda Claytoniana* and *O. cinnamomea*, by Douglas H. Campbell.

A New *Nectria*, by Byron D. Halsted.

The Compositæ Collected by Dr. Edward Palmer in Colima, by J. N. Rose. (Read by title only).

The Flora of Carmen Island, by J. N. Rose.

Notes Upon Bacteria of Cucurbits, by Byron D. Halsted.

Transpiration, or the Loss of Water in Plants, by C. E. Bessey and A. F. Woods.

Movement of Fluids in Plants, by W. J. Beal.

Absorbtion of Fluids by Plants, by L. H. Pammel.

PALÆOBOTANICAL PAPERS READ BEFORE SEC. E.

On Problematic Organisms and the Preservation of Algæ as Fossils, by Jos. F. James, in which the claim is made that the majority of so-called fossil algæ or fucoids, "are referable to tracks, trails or inorganic causes."

Principles and Methods of Geologic Correlation by Means of Fossil Plants, by Lester F. Ward, in which a strong case was made for the importance of palæobotany in assisting to determine geological horizons.

The Plant-Bearing Deposits of the American Trias, by Lester F. Ward. (Read by title).

Index to Recent Literature Relating to American Botany.

Abnormal Phyllotactic Conditions as Shown by the Leaves or Flowers of Certain Plants. Aug. F. Foerste. (Bot. Gaz. xvi. 159-166, pl. xiv).

This is one of the author's characteristic painstaking contributions. Notes on abnormal phyllotaxy are here given for *Sanguinaria Canadensis*, *Trillium sessile*, *Jeffersonia diphylla*, *Rhamnus lanceolatus*, and *Fraxinus sp.*

Alnus maritima. (Gard. and For. iv. 268, 269, f. 47).

Anatomy of Ipomœa versicolor, Meissn.—On Some Points in the. D. H. Scott. (Ann. Bot. v. 174-179. pl. xii., xiii).

Anthracnose of Cotton. Geo. F. Atkinson. (Journ. Mycol. vi. 173-178, pl. xvii., xviii).

Illustrated description of a new fungus, *Colletotrichum Gossypii*, South.

Arbutus Arizonica. (Gard. and For. iv. 317, f. 54).

Are Plums and Cherries of One Genus? E. L. Greene. (Gard. and For. iv. 250).

A discussion of the generic status of *Prunus* and *Cerasus* with incidental reference to *Pyrus* and *Malus.*

Aphelandra Blanchetiana. (Bot. Mag. t. 7179).

Bermuda in May. (Gard. and For. iv. 262, 263).

Bermuda Juniper—The. (Gard. and For. iv. 289, 290, f. 51, 52).

Illustrated description of *Juniperus Bermudiana.*

Bermuda Palmetto—The. (Gard. and For. iv. 302, f. 53).

Illustrated description of *Sabal Blackburniana.*

Bignonias. (Gard. xxxix. 10, 11, pl. 812. (colored).

The species figured in the plate is *B. Tweediana.*

Botanical Collecting in the Tropical Andes. H. H. Rusby. (Reprint from Bull. Pharm. April, 1891).

Botanical Reminiscences. H. H. Behr. (Zoë ii. 2-6).

The author's memoranda are of special interest from the fact that they date back to the days of the gold fever, when but little attention was paid to anything not mineral. Many species have been exterminated from localities where they were once abundant, and new species have been introduced. The "Reminiscences" could be paralled in nearly every growing community.

Botany of Fernando Noronha.—Notes on the. H. N. Ridley. (Journ. Linn. Soc. xxvii. 1-95; four plates).

The islands forming the group of *Fernando Noronha* lie in the Atlantic Ocean about 194 miles northeast from Cape San Roque, Brazil. They are of volcanic origin, and have never been connected with the main land. The group is about 8 miles long. Mr. Ridley gives a complete annotated list of all the plants now known to occur on these interesting islands, most of them having been collected by himself, Mr. G. A. Ramage and Rev. T. S. Lea during August and Semtember, 1887. The following new species are described, all of them endemic: *Oxalis sylvicola, Schmidelia insulana, Combretum rupicolum, Erythrina aurantiaca, Ceratosanthes angustiloba, C. cuneata, C. rupicola, Sesuvium distylum, Guettarda Leai, Palicourea insularis, Aspilia Ramagii, Bumelia fragrans, Jacquemontia euricola, Cuscuta globosa, Physalis viscida, Solanum botryophorum, Scoparia purpurea, Bignonia roseo-alba, Lantana amœna, Croton odoratus, Acalypha Noronhæ, Sapium sceleratum, Cyperus circinatus, Cyperus vialis, Cyperus Noronhæ, Paspalum anemotum, Paspalum phonoliticum, Gymnopogon rupestre* and *Riccia Ridleyi,* Gepp.

In addition to these there are a few other endemic species known from the group, published for the most part in the Botany of the "Challenger" expedition, the total number thus being about 40. Mr. Ridley points out that the remainder of the flora is

made up mainly of weeds, of plants introduced by sea-currents, or of plants with berries or edible seeds. N. L. B.

Bristol Pond Bog. F. H. Horsford. (Gard. and For. iv. 290, 291).

Notes on the vegetation of the above locality, Bristol, Vt.

Bronx Park. Anna M. Vail. (Gard. and For. iv. 314, 315, f. 55).

An illustrated description of the site selected for the New York Botanic Garden, with an account of some of the wild flowers found there in May.

Bulletin No. 13 *Iowa Agricultural Experiment Station.* (Pamph. 8vo. pp. 120, Ames, Iowa, May 1891; illustrated).

Articles of botanical interest in this Bulletin may be found under the headings "Fungus Diseases," "Weed Pests," "Preliminary Report on the Examination of Some Seeds," and "Notes on Some Methods of Cross-Pollination." Subjects of illustration under the first are: *Gymnosporangium macropus, Puccinia Pruni-spinosæ, Septoria Ribis, S. Pruni, S. Ravenelii, Sphærella Grossulariæ, Phyllosticta Pyrina, Cylindrosporium Padi, Fuscicladium dendriticum, Uromyces Trifolii.* A weed is aptly defined to be "a plant out of place," and as such the purity of seeds sown for farm crops is of great importance. Where crop seeds are adulterated by those of weeds it is of the highest importance to be informed of the fact, and this has been the subject of examination on the part of Mr. P. H. Rolfs, with interesting results which are set forth in his "Preliminary Report" upon the subject. For example a pound of "Sanfoin" (*Onobrychis sativa*) was found to contain twenty-nine different kinds of weeds! A. H.

Cactaceæ of the Cape Region of Baja California. T. S. Brandegee. (Zoë, ii. 18-22).

Twelve species are mentioned in the genera *Mamillaria, Cereus* and *Opuntia. M. Roseana, C. striatus* and *O. rotundifolia* are described as new.

Carica quercifolia (*St. Hil.*), *Solms.* Thos. Morong. (Reprint from Bull. Pharm. April, 1891, illustrated).

Catalogue of the Herbarium of the Late Dr. Charles C. Parry of

Davenport, Iowa. (Pamph. pp. 82. H. N. Patterson, Oquawka, Ills.).

From the preface, by Mrs. E. R. Parry, we learn that the herbarium, of which this is the catalogue, is for sale, with the cases and a library of botanical works. The number of species represented is 6,780, of which 5,290 are North American and 770 Mexican, a large number of which are duplicated. All communications should be addressed to Mrs. E. R. Parry, Davenport, Iowa.

Cattleya Schrœderæ. W. H. Gower. (Gard. xxxix, 30, 31, pl. 813).

Choisya ternata. (Gard. xxxix. 561, illustrated).

Choreocolax polysiphoniæ, Reinsch—On the Structure and Development of. H. M. Richards. (Cont. Crypt. Lab. Harv. Univ. xv. Reprint from Proc. Am. Acad. Arts and Sci. xxvi. illustrated).

Contributions from the Cryptogamic Laboratory of Harvard University. XVI. Chas. L. Mix. (Reprint from Proc. Am. Acad. Arts. and Sci. xxvi. 102-114).

Under the title "On a Kephir-Like Yeast Found in the United States," the author discusses an American milk ferment, similar to the "kephir" of the Caucasus, from which the natives make their fermented milk. It appears to be identical with Beyerinck's *Saccharomyces kefyr.*

Contributions to the Life Histories of Plants. No. VI. Thos. Meehan. (Reprint from Proc. Acad. Nat. Sci. Phil. May 26, 1890).

The subjects contributed are under the headings: "On the causes affecting variations in *Linaria vulgaris,*" "On the Self-Fertilizing Character of Compositæ," "On the Structure of the Flowers in *Dipteracanthus macranthus,*" "Aerial Roots in *Vitis vulpina,*" "Additional Note on the Order of Flowering in the Catkin of Willows" and "Self-Fertilizing Flowers."

Coursetia axillaris, n. sp. John M. Coulter. (Bot. Gaz. xvi. 180).

Description of a new species from San Diego, Texas.

Cypripedium Klotzschianum. (Bot. Mag. t. 7178).

Curious Case of Germination in Citrus decumana. W. G. Farlow. (Bot. Gaz. xvi. 179, 180).

This is a note to the effect that a germinating seed, with green cotyledons and plumule, was found inside a fruit of the above species. A similar instance was given in the case of a lemon [See Proc. Nat. Sci. Assn. S. I., Ocr. 8, 1887] indexed in the BULLETIN for Dec., 1887.

Difficulty of Ascertaining the Age of Certain Species of Trees in Uruguay from the Number of Rings—On the. David Christison. (Trans. and Proc. Bot. Soc. Eden, xviii, 447-455. Pl. iv).

A valuable contribution to the much discussed subject of "annual rings." Observations upon five species are given. The fact that seasonal variations cause rings similar to those caused by annual periods of rest and activity is noted, and in this connection the following words of the author are quoted: "The ages of the specimens cannot be determined with certainty by counting the rings on the blocks, except in *Robinia.* In *Melia,* zones of wood, sharply defined by lines of demarcation similar to those met with in our British trees, are seen, but the zones exceed in number the years of age of the tree. In the *Acacias* a series of wave-like rings greatly surpass in number the years of age of the trees, and it is difficult or impossible to pick out the true demarcation of the yearly growths." Even with the aid of the microscope the author confesses the impossibility at times of distinguishing the annual from the seasonal growth. He also points out the desirability of making some distinction when speaking of the annual increment and the line of demarcation between such growths, suggesting that *zone* be used to denote the former, and *ring* the latter. A. H.

Doassansia, Cornu.—Preliminary Notes on the Species of. Wm. A. Setchell. (Cont. Crypt. Lab. Harv. Univ. xiv. Reprint from Proc. Am. Acad. Arts and Sci. xxvi. 13-19).

Twelve species are described, the following as new: *Doassansia opaca,* (mentioned previously by Dr. Farlow under the name *Protomyces Sagittariæ*), *D. obscura, D. deformans.* The following new genera, with one species each, are described: *Burrillia pustulata* and *Cornuella Lemnæ.*

Does our Indigenous Flora give Evidence of a recent Change of Climate? J. Vroom. (Reprint from Bull. No. vii. Nat. Hist. Soc. New Brunswick).

The author endeavors to answer the question: "whether our sub-arctic plants have lingered here since the glaciers receded, or have once passed on in their northern migrations and been again driven southward to replace less hardy species; and whether a general movement in either direction is now going on." From facts observed the conclusion is reached that there has apparently been, within recent geological times, a constant amelioration of climate and a general tendency of plant migration northward.

Drymaria in Baja California. T. S. Brandegee. (Zoë, ii. 68-70).

Two new species are described in this account of the genus, viz: *D. carinata* and *D. polystachya.*

Epiphyllum. C. R. Orcutt. (West. Am. Sci. vii. 169-173, illustrated).

Erysipheæ from Carolina and Alabama—Some. Geo. F. Atkinson. (Journ. Elisha Mitchell Sci. Soc. vii., part ii. 61-74; Pl. i. and figures in text. Also reprinted).

Species under the following genera are listed: *Sphærotheca, Erysiphe, Uncinula, Phyllactinia, Podosphæra,* and *Microsphæra.* The following species are subjects of illustration: *Uncinula polychæta, Microsphæra Euphorbiæ, M. semitosta, M. Van Bruntiana* and *M. calocladophora.*

Eucryphia pinnatifolia. (Gard. Chron. ix. 612, f. 121).

Ferns at Home—Our. W. M. Beauchamp. (Observer, ii. No. 7, p. 5).

Fern notes from Onondaga Co. N. Y.

Flora and Fauna within Thirty Miles of Hanover, N. H. H. G. Jesup. (Cloth, 8vo. pp. 91, with map. Hanover, N. H., Jan. 23, 1891).

This is an enumeration of the Anthophyta, Pteridophyta and Vertebrata of the region mentioned. Synonomy and common names are freely given and there is a township map to illustrate localities. The number of plants listed is 1276, including 115 in cultivation.

Flora of Cook County, Illinois, and a Part of Lake County Indiana—The. Wm. K. Higley and Chas. S. Raddin. (Bull. Chicago Acad. Sci. ii. No. 1. Pamph. pp. 168, with map Chicago, 1891).

Preceding the catalogue are several articles pertinent to the subject, such as a sketch of the life of Henry Homes Babcock, to whose Catalogue of the Plants of Chicago the authors acknowledge their indebtedness; the geology of Cook Co., localities which are of special interest, etc. The total number of species and varieties listed is 1,336, of which 31 are Pteridophyta. Tables of comparison for various relations are freely given. There is a commendable attempt to break away from old traditions in nomenclature, and we are pleased to see *Castalia* substituted for *Nymphæa*, *Nymphæa* for *Nuphar*, and *Hicoria* for *Carya*, but we think it a mistake to have omitted the parenthetical citation of the author of a specific name while giving the author of the binomial. If it comes to a choice of dropping one or the other (of which we are not yet prepared to admit the necessity), it would certainly be preferable to omit the author of the binomial, and instead of *Hicoria ovata*, Britt., we should prefer to see *Hicoria ovata*, (Mill.). The notes on localities, variations from the normal of species and other matters of interest are freely introduced types and a very valuable addition to our local floras is the result.

A. H.

Flora of New Bedford and the Shores of Buzzard's Bay, with a Procession of the Flowers. E. W. Hervey. (Pamph. 8vo. pp. 80. New Bedford, Mass. May 1, 1891).

This work is something novel in the direction of catalogue making for several reasons. A large number of cultivated plants are included, which makes it valuable to those who are interested in gardening, and the "Procession of the Flowers" renders it possible for the collector to know within a few days when certain plants may be obtained in blossom. The "Procession" is arranged for periods of fifteen days, from March 15th to May 1st, after which date ten day periods are used, until September 1st, when the fifteen day periods are again quoted. Each plant which is known to begin its flowering within one of these periods is listed in its proper place. Notes are sparingly given and they

are often of value and interest. Thus, in regard to *Gaylussacia resinosa* ; " A white variety of this species is occasionally brought from neighboring towns for sale, but in small quantities. A small tract of land in Berkley, about fifty feet square, has borne an annual crop of perhaps a quart of white huckleberries for forty years or more. A few bushes bearing the ordinary black huckleberry are interspersed with those bearing the white variety. The white variety has also been found in East Fairhaven." In the catalogue proper the cultivated plants are omitted, and the number enumerated, including Hepaticæ, Musci and Pteridophyta, is 1228. The author tells us that the favorite color amongst the flowers in yellow, and we are further informed that " the percentage of each color, as to number of species, is as follows : white, thirty-three ; yellow, including orange, thirty-three ; red and blue purples, fifteen ; red, including crimson, scarlet and rose, twelve ; blue, seven." The nomenclature is that of the sixth edition of Gray's Manual. A. H.

Flora of the High Nebraska Plains—The. P. A. Rydberg. (Am. Nat. xxv. 485, 486).

Fuchsias as Climbers. (Gard. xxxix. 458, 459. Pl. 805, colored, and figs. in text). *Fuchsia dependens* is the subject of the colored plate and *F. globosa* and *F. serratifolia* are figured in the text.

Fungi—North American. Fourth Paper. A. P. Morgan. (Journ. Cincinn. Soc. Nat. Hist. xiv. 5-21. Pl. i, ii, also reprinted).

The genus *Lycoperdon*, with thirty-one species, sixteen of which are figured, is the subject of this contribution.

Geographic Limits of Species of Plants in the Basin of the Red River of the North. Warren Upham. (Proc. Boston Soc. Nat. Hist. xxv. Part 1, 140-172).

The scope of this article is comprehensive, and, like all of the author's contributions to science, bears the impress of conscientious and careful work. The meteorology and physiography of the region are first described, after which the trees and shrubs are mentioned, and then follow lists of the herbaceous plants, under the headings " Northern Species Extending to the Basin of the Red River," " Western Species Extending to the Basin of

the Red River," "Principal Grasses in the Basin of the Red River," "Maritime Plants in the Basin of the Red River," and "Principal Weeds, Indigenous and Naturalized, in the Basin of the Red River." The influence of the Ice Age upon the distribution of plants is discussed, and in reference to the region in question the author says: "The entire basin of the Red River of the North was covered by the ice-sheet, which also extended south to Saint Louis, and southwestward beyond the Missouri River, at the time of its maximum area in the early part of the Glacial Period, and to Des Moines, Yankton, the Coteau du Missouri, and the Elbow of the South Saskatchewan, at the time of its later great incursion. * * * Arctic and boreal plants were driven south during these epochs, to the central part of the United States, and at the close of the Ice Age they followed the receding ice-sheet and again took possession of the great northern region from which they had been expelled. With the restoration of a temperate climate throughout the northern United States and southern Canada, the arctic species found themselves no longer able to survive there, excepting in the cool heights of mountains, notably the White Mountains and the Adirondacks, and, in the case of a few species, on the cool, high northern shores of Lake Superior, and in the adjacent Isle Royal."

A. H.

Geological Position of the Catskill Group—The. Charles S. Prosser. (Reprint from Amer. Geol., June, 1891).

The author discusses the probable geological position of the Catskill Group, making special use of the palæo-botanical evidence. A list of thirteen fossil plants is given from the New York and Pennsylvania areas, and another of nineteen species from Perry, Maine.

Growth Periodicity of the Potato Tuber.—On the. Conway Macmillan. (Am. Nat. xxv. 462-469. Also reprinted).

Gymnosporangium (*Cedar Apples*)*—The Connecticut Species of.* Roland Thaxter. (Bull. No. 107, Conn. Agric. Exp. Sta. New Haven, Conn., April 15th, 1891).

The following species are described and their host plant noted: *Gymnosporangium Ellisii, G. clavipes, G. conicum, G. macropus, G. globosum, G. biseptatum, G. clavariæforme,* and *G.*

nidus-avis, the latter a new species, inducing a "birds nest" distortion in *Juniperus Virginiana*.

Host Index of the Fungi of the United States.—A Provisional. —Part III. W. G. Farlow and A. B. Seymour. (Pamph. pp. 83. Cambridge, June, 1891).

This third and final part of the index contains the last installment of the plant hosts, with an addendum of some thirty pages, a list of animal hosts, and an index covering the entire work.

Insects and the Forms and Character of Flowers—On the Relation Between. Thos. Meehan. (Bot. Gaz xvi. 176, 177).

Later Life-History of the Flowering Dogwood—Notes on the. M. A. Read. (Pop. Sci. News. xxv. 47. 48, illustrated).

An article, designed for popular reading, upon evolution in the genus *Cornus*. *C. florida* and *C. Canadensis* are figured.

Letters received from Mr. Graham Kerr, Naturalist to the Pilcomayo Expedition. (Trans. and Proc. Bot. Soc. Edin., Dec. 1890, 33-40, and March, 1891, 80-87).

Contain many notes on the vegetation of the region.

Life-History of a Stipitate Fresh Water Alga. George Massee. (Journ. Linn. Soc. xxvii. 457-462; one plate).

An account of the development of *Dictyosphærium Ehrenbergianum*, Næg., a plant common to Europe and America.

List of Plants collected by Dr. Edward Palmer in 1890, *in Western Mexico and Arizona, at i. Alamos, ii. Arizona.* J. N. Rose. (Cont. U. S. Nat. Herb. i., No. iv. Pamp. 8vo. pp. 127, ten plates. Washington, D.C., June 30th, 1891).

The following are described and figured as new: *Stellaria montana, Diphysa racemosa, Echinopepon cirrhopedunculatus, Tithonia fruticosa, Bidens Alamosanum, Hymenatherum anomalum, Perezia montana, Cordia Palmeri, Ipomæa alata* and *Tabebuia Palmeri*. Others described but not figured are: *Sida Alamosana*, Watson, ined.; *Ayenia paniculata; A. truncata; Bunchosia Sonorensis; Rhus Palmeri; Hosackia Alamosana; Brongniartia Palmeri; Willardia* [n. gen.] *Mexicana; Piscidia mollis*, called "palo blanco" from its white appearance; *Mimosa* (*Leptostachyæ*) *Palmeri; Lysiloma Watsoni; L. Acapulcensis*, Benth. var. *brevispicata; Pithecolobium Mexicanum; Schizocarpum Palmeri; Vernonia* (?) *Palmeri; Erigeon Alamo-*

sanum ; Zinnia linearis, Benth. var. *latifolia ; Sclerocarpus spatulatus ; Zexmenia fruticosa ; Viguiera montana ; Tithonia Palmeri ; Perityle effusa ; Metastelma latifolia ; Cordia* (*Sebestinoides*) *Sonoræ*, [under which description reference is made to Pl. ix, designated *Corda Palmeri*] ; *Ipomœa Grayi ; Solanum* (*Androcera*) *Grayi ; Salvia* (*Calosphace*) *Alamosana ; Bœrhaavia Alamosana ; B. Sonoræ ; Euphorbia* (*Poinsettia*) *tuberosa; Croton* (*Eucroton*) *Alamosanum ; Sebastiana Palmeri ; Tradescantia Palmeri ; Leptorhræa tenuifolia ; Paspalum setaceum*, Michx., var. *pubiflorum ; Boutelona Alamosana ; Clematis Palmeri ; Hymenopappus radiata* and *Carex hystricina*, Muhl., var. *angustior*. In addition to the above there are descriptions of new plants in a number of different genera, to which specific names have been given, and valuable notes and memoranda are to be found upon nearly every page. It is more than a mere list , and the plates are above the average. A. H.

Loco Weeds. L. H. Pammel. (Vis Medicatrix, i. 40, 45, illustrated).

Several species are mentioned as producing "loco" effects, belonging to the genera *Oxytropis, Astragalus, Crotalaria, Gompholobium, Corydalis, Malvastrum, Physostigma* and *Sophora*. *Stipa viridula*, var. *robusta*, is also said to be "a good loco weed." *Crotalaria sagittalis* is the subject of illustration. *Lycastes Harrisoniæ*, var. *eburnea*. (Am. Gard. xii. 407, figured).

Manual of the Phanerogams and Pteridophytes of Western Texas. John M. Coulter. (Cont. U. S. Nat. Herb. ii. No. 1. Pamph. pp. 152. one plate, Washington, D.C., June 27, 1891).

This is a work which will be highly appreciated by every botanist for the region lying west of the ninety-seventh meridian, in Texas. It is to be issued in parts, the present one including the Polypetalæ only. The keys and descriptions seem clear, useless synonomy is avoided, and there is a gratifying attempt at independence in the matter of nomenclature which augurs well for the work. *Thelypodium Vaseyi*, n. sp. is figured.

Masdevallia platyglossa. (Bot. Mag. t. 7185).

Migration of Weeds—The. Byron D. Halstead. (Reprint from Proc. A. A. A. S. xxxix. 304-311).

Missouri Botanical Garden. Second Annual Report. Wm. Trelease. (Cloth, 8vo. pp. 117, illustrated).

This includes, in addition to the executive report, the author's revision of the American species of *Epilobium* occurring north of Mexico.

Monomialism. L. H. Bailey. (Bot. Gaz. xvi. 215, 216).

The latest contribution to the nomenclature discussion.

Mycological Notes.—II. Geo. Massee. (Journ. Mycol. vi. 178-184. Pl. vii).

Sarcomyces and *Dacryopsis* are described as new genera. *Sarcomyces vinosa, Peziza protrusa, Stamnaria Pusio, Cyphella Tela, Dacryopsis gyrocephala, D. Ellisina, D unicolor, D. nuda,* and *D. enata,* are figured, and descriptions given of other species.

Our Native Plants.—II. (Vick's. Mag. xiv. 179, 180, illustrated).

Contain representations of *Arisæma triphyllum* and *Claytonia Caroliniana.*

Native Orchids—A Few. Mrs. Preston Lovell. (Am. Nat. xxv. 248-251).

An article that was probably written for *St. Nicholas* or *Young People,* and was printed by mistake where we now find it.

Native Shrubs of California, V, VI. E. L. Greene. (Gard. and For. iv. 243, 255, 256).

Notes on species of the genera *Cerasus, Prunus* and *Amygdalus.*

New Astragalus—A. T. S. Brandegee. (Zoe, ii. 72).

A. coccineus is described as new, from the Inyo Range and slopes of Mt. Whitney.

New or Noteworthy Species.—X. E. L. Greene. (Reprint from Pittonia, ii. 161–166).

The following species are described: *Berberis pumila, Tellima scabrella, T. nudicaulis, Saxifraga Howellii, S. Marshallii, S. Californica, Gayophytum lasiospermum, Chorizanthe Nortoni, Eriogonum Nortoni, E. aguinum, E. Jepsonii, Senecio hesperius,* and *S. Rawsonianus.*

New or Peculiar North American Hyphomycetes—On Certain. Roland Thaxter. (Bot. Gaz. xvi. 201-205, pl. xix, xx).

The following new genera are described: *Helicocephalum*, with *H. sarcophilum* as n. sp.; *Gonatorrhodiella*, with *G. parasitica* as n. sp.; *Desmidospora*, with *D. myrmecophila* as n. sp.; a new species described is *Everbatia lignatilis*. All are figured. *E. hymenuloides*, Sacc. and Ell., is figured for comparison with the preceding.

New Plants from Arizona, Utah and Nevada. Marcus E. Jones. Zoe. ii. 12-17).

The following species are described: *Astragalus Moencoppensis, A. sophoroides, Frasera Utahensis, Cercocarpus Arizonicus, Cymopterus megacephalus, Laphamia Gilensis, Eriogonum flexum, Stanleya elata*, and *S. albescens.*

Nomenclature—Notes on. George B. Sudworth; N. L. Britton; B. E. Fernow. (Gard. and For. iv. 165, 166; 202; 213, 214; 239).

Mr. Sudworth favors the use of specific names identical with generic in binomials if the name has priority, and points out the fact that *Negundo aceroides*, Mœnch, which was originally described as *Acer Negundo*, L., should be called *Negundo Negundo* if the genus *Negundo* is to be maintained; likewise *Catalpa bignonioides*, Walt., would become *Catalpa Catalpa*, and *Sassafras officinale*, Nees., would become *Sassafras Sassafras*. He refers to the use of this method by zoologists, and calls attention to Dr. Britton's non-acceptance of it in his recent catalogue of the plants of New Jersey.

Dr. Britton expresses himself in favor of the method, and states why he did not adopt it in the New Jersey Catalogue. He further favors the citation of the original author of the name only, as is done by the zoologists; as for example; *Catalpa Catalpa* (L.), not *Catalpa Catalpa*, Sudworth, nor *Catalpa Catalpa* (L.) Sudworth.

Mr. Fernow favors the double citation.

Mr. Sudworth, returning to the topic, maintains that inasmuch as the genus *Bladhia*, Thunb., (1781), is equivalent to, and antedates *Ardisia*, Sw., (1797), the West Indian and Floridian tree which has recently been known as *Ardisia Pickeringia*, originally published by Nuttall as *Cyrilla paniculata*, should be called *Bladhia paniculata;* also, that the name *Persea Caro-*

linensis, Nees., should be *Persea Borbonia*, as already pointed out in these columns.

Norfolk Island Pine—The. (Gard. xxxix. 561, illustrated).

Contains cut of *Araucaria excelsa*.

Notes on some Western Cherries. E. L. Greene. (Reprint from Pittonia, ii. 159-161).

The author states that specimens of *Cerasus demissa* from the West have frequently been collected and labeled as *C. Virginiana*, which latter species, he contends, does not occur west of the Rocky Mountains. The species previously described as *C. Californica* by the author, is here referred to *C. emarginata*, Dougl., and the specific rank of *C. mollis* is the subject of a short note.

Nuphar advena. (Meehan's Monthly, i. 17, 18, pl. 2).

Paullinia tortuosa (Benth.) T. S. B. (Zoë. ii. 74).

A note to the effect that *Cardiospermum tortuosum* belongs in the genus *Paullinia*.

Peach Rosette—The. Erwin F. Smith. (Journ. Mycol. vi. 143-148, Pl. viii-xiii).

Illustrated description of a disease previously erroneously attributed to the beetle *Scolytus rugulosus*.

Penetration of the Host by Peronospora gangliformis. W. H. Rush. (Bot. Gaz. xvi. 208, 209, illustrated).

Pestalozzia insidens—The Fungus. J. L. Zabriskie. (Journ. N. Y. Mic. Soc. vii. 101, 102; Pl. 28).

Pitcher Plant or Side Saddle Flower—The. H. L. Clarke. (Vick's Mag. xiv. 213-215, illustrated).

Sarracenia purpurea is figured and described.

Plants peculiar to Magdalena and Santa Margarita Islands—The. T. S. Brandegee. (Zoë. ii. 11, 12).

The following species are noted: *Gongylocarpus fruticulosus*, *Mamillaria Halei*, *Agave Margaritæ*, *Brickellia hastata* and *Viguiera subincisa*

Plates prepared Between the Years 1849 *and* 1859, *to Accompany a Report on the Forest Trees of North America.* Asa Gray. (Pamph. 4to, 23 plates. (Smithsonion Inst. Washington, D. C., May, 1891).

This is a volume of natural sized colored representations of the following species: *Magnolia grandiflora*, *M. glauca*, *M. umbrella*,

M. auriculata, Liriodendron tulipifera, Tilia Americana, Acer rubrum, A spicatum, Æsculus glabra, Æ. discolor, Æ. parviflora, Robinia psaudacacia, R. viscosa, Cercis Canadensis, Gymnocladus Canadensis, Gleditschia triacanthos, Prunus Americana, P. Chicasa, P. Pennsylvanica, P. Virginiana, P. serotina, Pyrus coronaria and *Cornus alternifolia.* We learn from the announcement at the beginning of the volume that these are the finished plates of what was to have been a complete work upon the forest trees of North America. The text was never prepared, and none has been added, and the accompaning nomenclature is such as was in use at the time the plates were executed, and we think that in thus preserving the work in its original shape, those who are responsible for its publication have acted wisely. Had it been completed the work would have been a magnificant one, covering a large part of the same ground included in Prof. Sargent's Sylva of North America. Mention is made of the preparation of these plates in the preface to Prof. Sargent's work, and it is a matter for sincere congratulation that we now have them, not only on account of their botanical value and handsome appearance, but also for the historical interest attached to them.

A. H.

Poisoning by the So-Called Wild Parsnip—Review of some cases of. F. D. Power. (Pharm. Rundsch. ix. 162-165, illustrated).

The author takes issue with all who claim poisonous qualities for the roots of wild *Pastinaca sativa*, and it is claimed that in all cases investigated where poisoning has resulted from eating parsnip roots, these were shown to belong to *Cicuta maculata.* In every case where the author has known wild *Pastinaca* to be eaten no evil results have followed.

Popular Names of American Plants. Sylvanus Hayward. (Journ. Am. Folk-Lore iv. 147-150).

Populus monticola. (Gard. and For. iv. 330, f. 56.)

Record of Current Literature for 1890. (Ann. Bot. iv. No. xvi).

This entire number is taken up with the above subject. It is divided into two parts. Part i is "Books and Pamphlets," indexed under the authors' names; Part ii is Periodical Literature," indexed geographically.

Rediscovery—An Interesting (Gard. and For. iv. 253, 254).

Account of the finding of *Lonicera flava*, at Paris Mt., S. C., by Mrs. J. G. Smyth.

Red Oak—The (Gard. and For. iv. 337. 338, f. 58).

An illustrated article on *Quercus tnba.*

Report of the Entomologist and Botanist. (Appendix, Rept. Minister of Agric., Ottawa, Can. 154-188, Pl. i-ix).

In the division of Botany there are lists of native and introduced grasses with which experiments have been made, and plates of the following species, taken from the Special Bulletin of the U. S. Dept. Agric.: *Agropyrum glaucum*, var. *occidentale*, *Bouteloua oligostachya*, *Muhlenbergia Mexicana*, *Phalaris arundinacea*, *Poa pratensis*, *P. serotina*, *Lolium perenne*, *Festuca ovina*, and *Bromus secalinus.*

Report of the Mycologist. Roland Thaxter. (Reprint from 14th Ann. Rept. Conn. Agric. Exp. Sta., 1890, illustrated).

The potato "scab" is one of the subjects for description and illustration, now recognized under the genus *Sorosporium.* The "leaf spot" of quince (*Entomosporium maculatum*) is also treated, from an economic standpoint, and there are short notes upon *Phytophthora infestans*, *Cladosporium fulvum*, *Macrosporium Tomato*, *Fusarium Lycoperdici*, *Empusa Grylli*, *Peronospora Cubensis*, *Phytophthora Phaseoli*, *Gymnosporangium globosum*, *Ramularia rufomaculans*, *Uromyces Trifolii*, (to which incorrect reference was made in the last report as *U. striatus*), *Puccinia rubigo-vera*, and *Urocystis occulta.*

Rhododendron Kamtschaticum. (Meehan's Monthly, i. 4. figured).

Rhododendron maximum. (Meehan's Monthly, i. 1, 2, Pl. 1, colored).

Ripe Rot of Grapes and Apples. E. A. Southworth. (Journ. Mycol. vi. 164-173, Pl. xvi).

Illustrated description, history, and bibliography of *Glœosporium fructigenum.*

Rodriguezia anomala. R. A. Rolfe. (Gard. Chron. ix. 728, 729, f. 145).

Description and figure of a new species, native of South Brazil.

Rosa minutifolia. C. R. Orcutt. (West Am. Sci. vii. 181, 182).

Schomburgkia tibicinis. (Gard. Chron. ix. 651, f. 126).

Sophronites grandiflora. (Gard. Chron. ix. 668, f. 127).

Southern Mississippi Floral Notes. Byron D. Halsted. (Gard. and For. iv. 250, 251).

Swamp White Oak—The. (Gard. and For. iv. 241, 242, f. 44).

Terminology of the Spermaphytic Flower—A Suggestion on the. Conway MacMillan. (Bot. Gaz. xvi. 178-179)

Three Month's Course in Botany—The. Conway MacMillan. (Education, xi. 406-411 ; 488-494).

Through San Gorgonia Pass. C. R. Orcutt. (West Am. Sci. vii. 174-177).

Consists of memoranda on the botany of the region.

Toad-Stool Plant—The (Meehan's Monthly, i. 21, illustrated).

Under this heading is an illustrated note on *Scybalium fungiforme.*

Tree Measurements, Made Monthly at San Jorge, Uruguay, from January 12, 1885, *to January* 12, 1890—*Notes on.* Chas. E. Hall. (Trans. and Proc. Bot. Soc. Edin. xviii. 456-468 Pl. v, vi).

A record of the results deduced from careful measurements of some twenty trees during a period of five years, showing relative increase in girth, maximum and minimum months of growth, etc.

Tuberculosis of the Olive. Newton B. Pierce. (Journ. Mycol. vi. 148-153. Pl. xiv, xv.)

Illustrated description of *Bacillus Oleæ.*

Tulip Poplar, or Poplar Tree—The. J. T. Rothrock. (For. Leaves, iii. 85-86, illustrated).

Under this title we have an account of *Liriodendron*, and a picture of three large individuals near West Chester, Penn., known as "The Sisters."

Tuna—The. C. R. Orcutt. (West Am. Sci. vii. 153-157. illus-) trated.

The three species of *Opuntia* known under the name of "Tuna" are here described and figured and their importance as a source of food supply dwelt upon.

Undescribed Plants from Guatemala—IX. John Donnell Smith. (Bot Gaz. xvi. 191-200, Pl. xvi-xviii.)

The following new species are described : *Serjania rufisepala,*

Radkl., *S. psilophylla*, Radkl., *S. rachiptera*, *Paullinia scarlatina*, Radkl., *Spondias Radlkoferi*, *Galactia discolor*, *Oreopanax oligocarpum*, *Parathesis sessilifolia*, *P. pleurobotryosa*, *Nephradenia fruticosa*, *Solenophora erubescens*, *Heurya imbricans*, *Pisonia aculeata*, L., var. *macranthocarpa*, *Neea psycotrioides*, *Dalechampsia scandens*. L., var. *trisecta*, *Pinus Donnell-Smithii*, Mast., *Fimbristemma calycosa*, *Besleria Pansamalana*, *Macfadyena simplicifolia* the latter three figured.

Vascular Cryptogamia of the Island of St. Vincent—On the. J. G. Baker. (Am. Bot. v. 163-172, Pl. x, xi).

This article consists of a list of the species recently collected by Messrs. H. H. and G. W. Smith, in connection with a committee appointed by the British Association for the Advancement of Science, for a biological exploration of the West Indies. Two new species are figured and described: *Hymenophyllum Vincentinum* and *Asplenium Goldmani*. The whole collection consists of 145 species and varieties. There is also appended a list of 26 species reported from the Island and published in Grisebach's Flora of the British West Indies.

Vegetation of Louisiana and Adjoining Regions, and Its Products, in Relation to Pharmacy and Allied Industries. Carl Mohr. (Pharm. Rundsch. ix. 132-135).

What is Forestry? B. E. Fernow. (Bull. No. 5, Forestry Divn. U. S. Dept. Agric. Pamph. pp. 52, Washington, D. C, 1891).

This in the nature of a circular of information on the subject, containing much of value in small compass.

Wild Flowers Around St. Louis. (Gard and For. iv. 260-261.)

Witch Hazels—The. (Gard. xxxix. 546, 547, illustrated).

Contains a cut of *Hamamelis Virginica.*

Xerophyllums. (Gard. xxxix. 526, 527, Pl. 808, colored and fig. in text).

Xerophyllum asphodelioides is the subject of the colored plate, and a borrowed cut (not credited) from Miss Treat's "Among the Pines," illustrates the habitat of the plant.

Yucca rupicola. J. G. Baker. (Bot. Mag. t. 7172).

Yucca Whipplei. W. F. Parish. (Vick's Mag. xiv. 211, 212, illustrated).